

Application. No.: 10/820,349

Docket No.: FDN-2837

Amendment

SERIAL NO. 10/820,349

REMARKS

After entry of this Amendment, claims 1-4, 6-7 and 11-19 will be pending. Claims 1, 2, 4, and 7 have been amended. Claims 11-19 are new.

Applicants hereby respectfully acknowledge a telephone Interview with Examiner Weddington on 04/04/07. During the interview, it was understood that the rejection of claims 1-10 under 35 U.S.C. 112 would be overcome by specifying certain bacteria, etc. in the preamble and by inserting appropriate weight percentages in claim 7. Further during the interview, the present invention was distinguished over the cited prior art in that an antimicrobial composition consisting essentially of the defined weight ratios of a 1,2-diol and phenoxyethanol, optionally with a specific co-biocide provides a new and useful preservative product not shown or described in the prior art.

Turning our attention now to the specifics of the outstanding Office Action, claims 1-10 were rejected under 35 U.S.C. 112, first paragraph, as being too broad in respect to the effectiveness of the antimicrobial composition against all forms of bacteria, yeast and mold spores.

Accordingly, independent claim 1 has been amended herein in the preamble to recite that the antimicrobial composition of this invention is effective against *E. coli*, *P. aeruginosa*, *Staph. Aureus*, *C. albicans*, *A. niger* and *B. cepacia*. This amendment is amply supported by the instant specification as filed, e.g., by the showings in working examples 1-19 of the specification. Accordingly, reconsideration of this rejection is respectfully requested.

Claim 7 has been amended to correct the defined amounts of the components as percentages. Accordingly, reconsideration of this rejection is respectfully requested.

Claims 1-10 stand rejected under 35 U.S.C. 103(a) as being unpatentable over EP 123 8651 A1 (Morelli et al) in view of Windholz et al (The Merck Index, 10th Edition). The Examiner indicates that Morelli et al teach a composition of caprylyl glycol (1,2-octanediol) in combination with iodopropynyl butyl carbamate (IPBC) and phenoxyethanol. The Examiner noted that Morelli et al do not teach applicants' preferred weight ratios of each agent of the antimicrobial composition present in claims 1, 3, 5 and 7. The Examiner also indicated that

Morelli et al do not teach the addition of sorbic acid, or the use of sorbic acid, in the instant antimicrobial composition, although the secondary reference Windholz et al disclosed that sorbic acid is a well-known mold and yeast inhibitor.

Applicants respectfully traverse the Examiner's rejection of claims 1-10, as amended, on either of the cited references, alone or in combination. To further distinguish from the teaching of Morelli et al, independent claim 1 has been amended to delete the recitation of IPBC as an optional co-biocide. Also, claim 6 referring to IPBC has been cancelled and claims 2 and 7 have been amended such that there is no longer reference to IPBC. Applicants can find no disclosure, teaching or suggestion in the references which render the claimed invention, as amended, obvious to one skilled in the art.

More specifically, claim 1 recites an antimicrobial composition consisting essentially of defined amounts of (a), (b), and optionally (c). Thus, claim 1 calls for a composition consisting essentially of a 1,2-diol, phenoxyethanol and optionally (c). Morelli does not teach or suggest such a composition. In particular, Morelli et al in paragraph [0056] describe octanediol alone, a mixture of IPBC and phenoxyethanol and a mixture of all three components. As noted, Applicant's claims have been amended to exclude such mixtures containing all three of those components. Morelli et al do not specifically disclose compositions consisting essentially of a 1,2-diol and phenoxyethanol. In this regard, it is noted that the working examples in Morelli disclose mixtures consisting of IPBC and caprylyl glycol (Example 1, paragraph [0066], phase I) and IPBC & phenoxyethanol with octanediol and other ingredients (Example 2, paragraph [0070], Phase B). Morelli primarily relates to end use compositions such as sunscreen compositions featuring the three components. In order to further distinguish the invention from the prior art, claims 8-10 directed to end use personal care product including the antimicrobial composition of the invention have been cancelled.

Furthermore, as noted above, the Examiner has indicated that Morelli et al do not specifically teach the applicant's weight of each agent in the invention antimicrobial composition which are set forth in the claims. Applicants' composition in a defined weight ratio provides a concentrated antimicrobial composition system which can deliver water insoluble biocides into aqueous personal care product systems at relatively high concentrations, thus providing more effective preservative activity for such products.

The Examiner has stated that the secondary Windholz reference discloses that sorbic acid is a well-known mold and yeast inhibitor. Applicant respectfully traverses the Examiner's rejection of the three-component composition which may include sorbic acid on a combination of the primary and secondary references.

More particularly, as discussed above, applicants' antimicrobial composition consisting essentially of a 1,2-diol and phenoxyethanol, in defined and unexpected weight ratios of each, provides a new and useful antimicrobial composition, which is novel and inventive on its own, alone or with the presence of sorbic acid. Accordingly, the presence of optional co-biocide (c) is subservient to the unique two-component antimicrobial composition in the defined weight ratios. Reconsideration is respectfully requested of the rejection on the combination of references.

New claims 11-19 are directed to additional embodiments of the invention. Independent claim 11 recites the percentages of the components with respect to the total weight of the 1,2-diol and the phenoxyethanol to correspond more closely to the compositions set forth in the examples. Claim 12 is directed to a composition containing a mixture of 1,2-pentanediol, 1,2-hexanediol and 1,2-octane diol. Support for claim 12 is clearly provided in examples 16, 17 and 18. New claim 14 is directed to a composition containing equal parts of each of the recited 1,2-diols. Support for claim 14 can also be found in examples 16, 17 and 18. Support for the remaining new claims is also clearly provided in the specification as filed and, more specifically, in the examples.

In view of the essential differences between the present invention and the cited references, applicants respectfully urge that the claims as amended define patentable invention thereover, and are not obvious to one skilled in the art. Accordingly, reconsideration and early allowance of the claims as amended is respectfully solicited. In view of the foregoing, Applicant respectfully believes that the claims as amended are in condition for allowance, which action is respectfully solicited.

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In the event any issue remains after this amendment, the Examiner is invited to telephone
Applicant's undersigned Attorney to address the issue. Respectfully submitted,

Respectfully submitted,

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